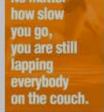
Empowerment, curiosity, Al

(Why and how I do exergame design & research)

Perttu Hämäläinen
Assistant professor of computer games
Aalto University, Helsinki, Finland



























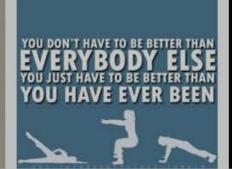
Exercise motivation

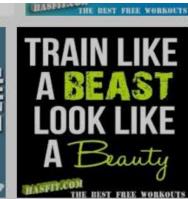


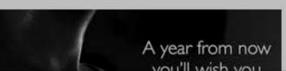


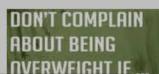


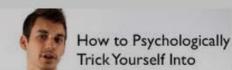














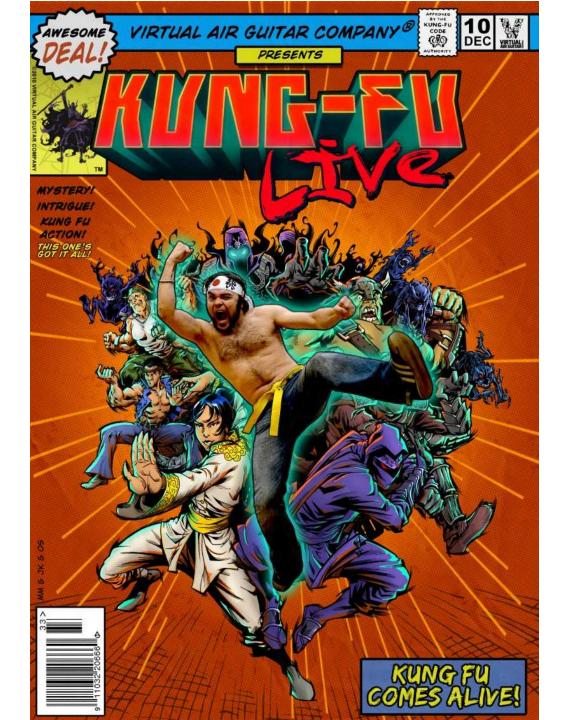








Empowerment of movement SCORE 00000/0500 HI 0000321000









Kung-Fu Live (Virtual Air Guitar Company, 2010)



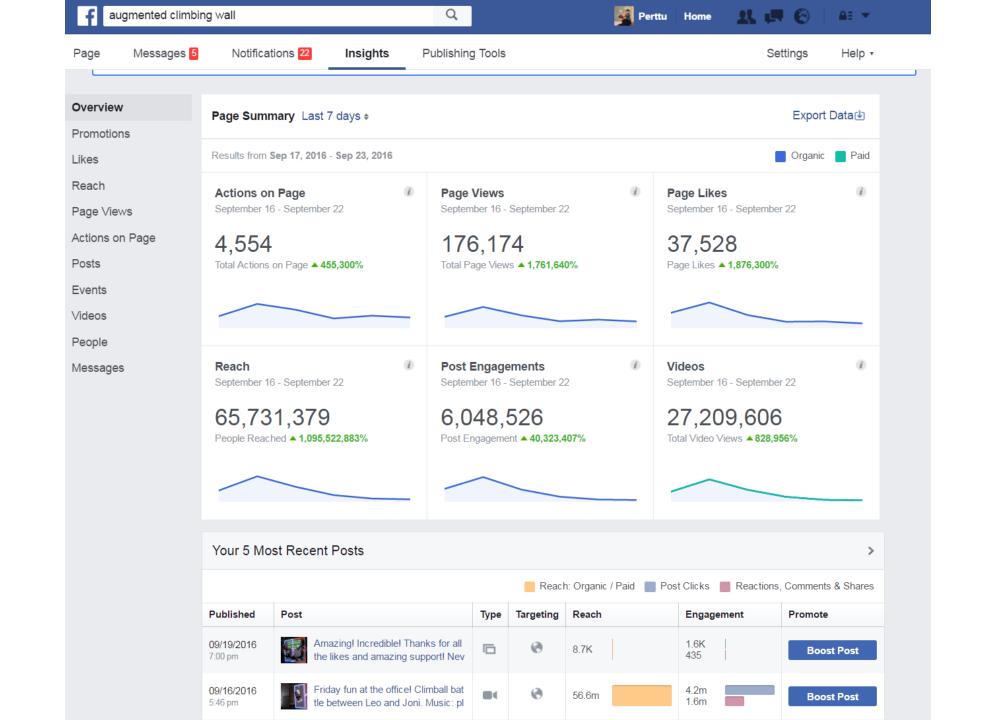






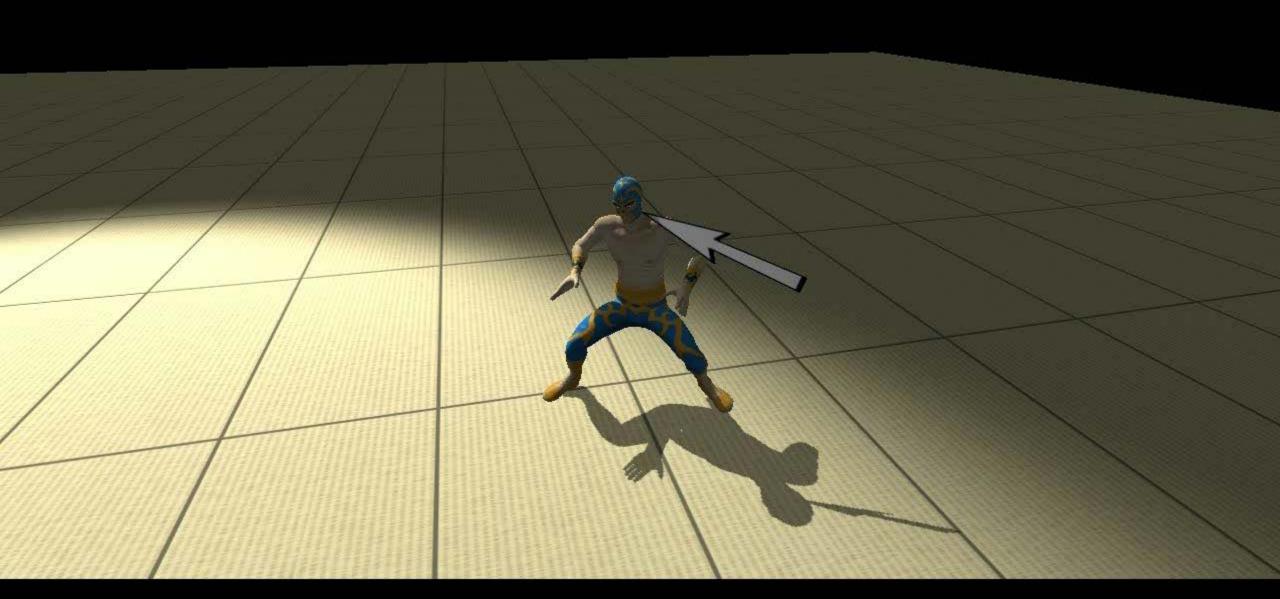
Augmented Climbing Wall (CHI 2016)



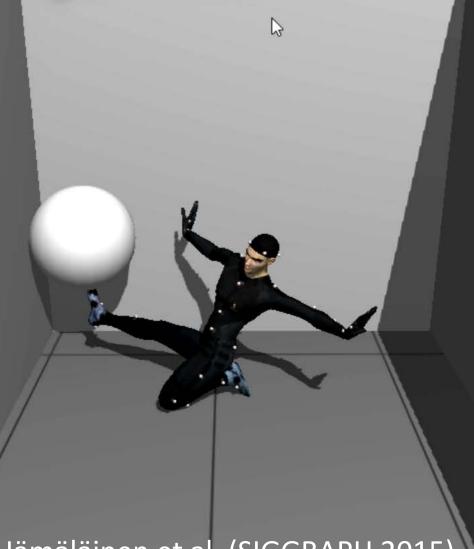


Future: Exergames & Al

Selected mode:Balancin Hämäläinen et al., SIGGRAPH 2014

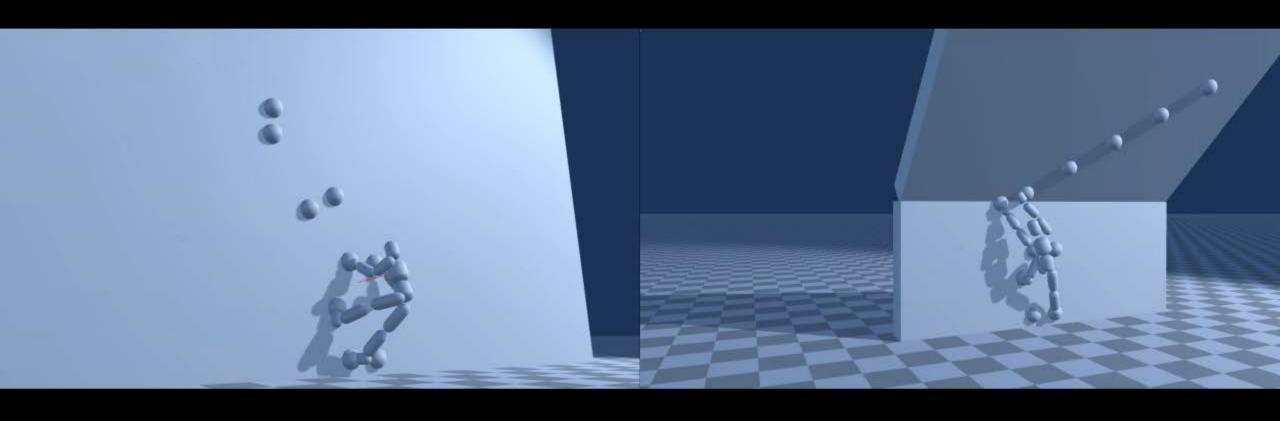


Interactive emergent movement. No training data.

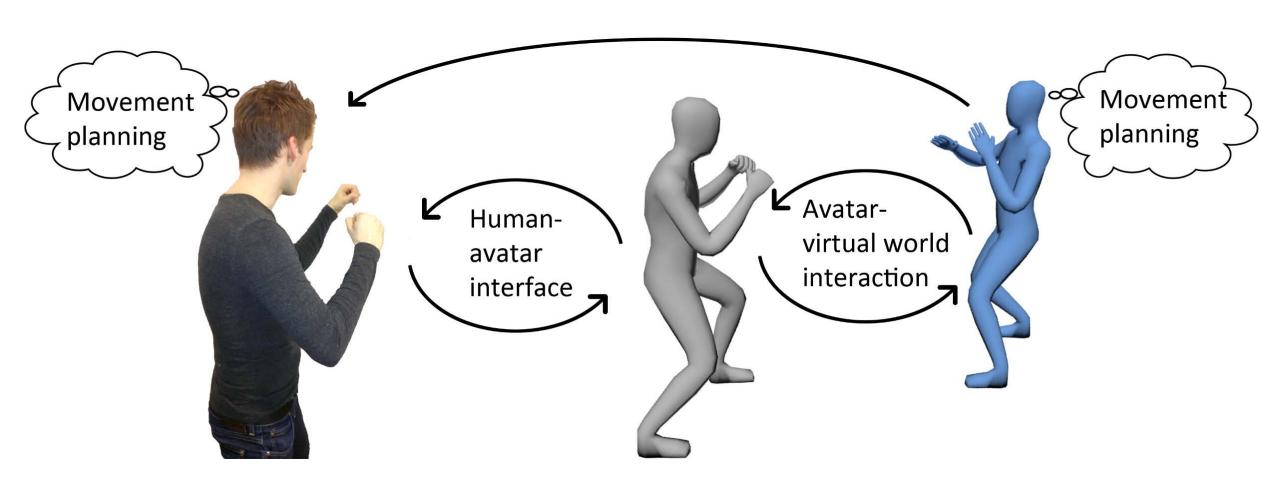


Hämäläinen et al. (SIGGRAPH 2015)

Naderi et al., SIGGRAPH 2017



Towards intelligent exergames?

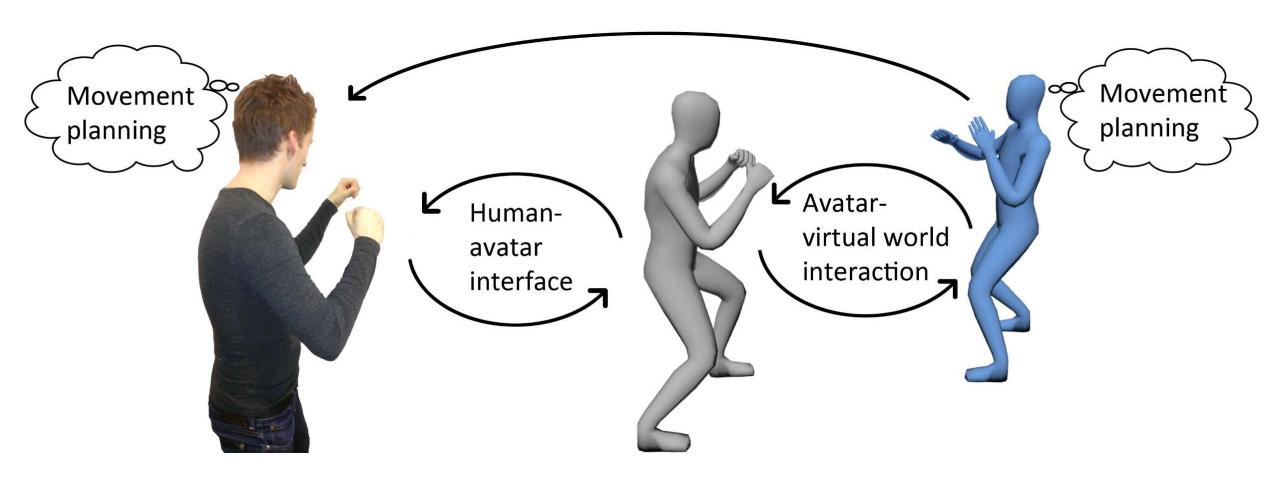




Uses of Al in (exer)games

- Game playing (opponent, partner, tester)
- Game creation (rule & content design, with or without human assistance)
- Game adaptation (understanding and supporting player needs and motivations)
- Embodied biomechanically simulated athletes give us embodied data! (Localized exertion levels, pain...)

Towards intelligent exergames?



(And don't forget empowerment & curiosity)